CLAIMS:

1. An electric device (1, 100) with a body (2, 101) having a resistor (7, 250) comprising a phase change material being changeable between a first phase and a second phase, the resistor (7, 250) having an electric resistance which depends on whether the phase change material is in the first phase or the second phase, the resistor (7, 250) being able to conduct a current for enabling a transition from the first phase to the second phase, the phase change material being a fast growth material.

2. An electric device (1, 100) as claimed in Claim 1, wherein the phase change material has a crystallization speed of at least 1 m/s.

3. An electric device (1, 100) as claimed in Claim 1, wherein the phase change material is a composition of formula $Sb_{1-c}M_c$, with c satisfying $0.05 \leq c \leq 0.61$, and M being one or more elements selected from the group of Ge, In, Ag, Ga, Te, Zn and Sn.

4. An electric device (1, 100) as claimed in Claim 3, wherein c satisfies $0.05 \leq c \leq 0.5$.

5. An electric device (1, 100) as claimed in Claim 4, wherein c satisfies $0.10 \leq c \leq 0.5$.

6. An electric device (1, 100) as claimed in Claim 1, wherein the phase change material is substantially free of Te.

7. An electric device (1, 100) as claimed in Claim 3, wherein the phase change material comprises Ge and/or Ga in concentrations which range in total between 5 and 35 atomic percent.

8. An electric device (1, 100) as claimed in Claim 3, wherein the phase change material comprises In and/or Sn in concentrations which range in total between 5 and 30 atomic percent.

9. An electric device (1, 100) as claimed in Claim 1, wherein the phase change material is a composition of formula $Sb_aTe_bX_{100-(a+b)}$, with a, b and 100–(a+b) denoting atomic percentages satisfying $1 \leq a/b \leq 8$ and $4 \leq 100-(a+b) \leq 22$, and X being one or more elements selected from the group of Ge, In, Ag, Ga, Zn and Sn.

10. An electric device (1, 100) as claimed in Claim 9, wherein the phase-change material comprises at least 10 % and less than 22 % Ge.

11. An electric device (100) as claimed in Claim 9, wherein the resistor (7, 250) has a first contact area (5, 132) and a second contact area (6, 272), the first contact area (132) being smaller than or equal to the second contact area (272), the first contact area (132) having a characteristic dimension d (in nm), d being larger than $6 \cdot a/b$.

12. An electric device (100) as claimed in Claim 1, wherein the phase change material of the resistor (250) is in direct contact with a crystallization layer (127, 128) for expediting the transition from an amorphous phase to a crystalline phase.

13. An electric device (100) as claimed in Claim 12, wherein the crystallization layer (127, 128) is in direct contact with the first contact area (132) and/or in direct contact with the second contact area (272).

14. An electric device (100) as claimed in Claim 1, wherein the resistor (250), a first conductor (130) and a second conductor (270) electrically connected to the resistor (250) constitute a memory element (103), and the body (101) comprises:

- an array of memory cells, each memory cell comprising a respective memory element (103) and a respective selection device (104), and
- a grid of selection lines (120, 190),

each memory cell being individually accessible via the respective selection lines (120, 190) connected to the respective selection device (104).

15. An electric device (100) as claimed in Claim 14, wherein:

- the selection device (104) comprises a metal oxide semiconductor field effect transistor having a source region (110), a drain region (112) and a gate region (116), and
- the grid of selection lines comprises N first selection lines (190), M second selection lines (120), N and M being integers, and an output line (271),

the first conductor (130) of each memory element (103) being electrically connected to a first region selected from the source region (110) and the drain region (112) of the corresponding metal oxide semiconductor field effect transistor, the second conductor (270) of each memory element (103) being electrically connected to the output line (271), a second region of the corresponding metal oxide semiconductor field effect transistor which is selected from the source region (110) and the drain region (112) and which is free from the first region, being electrically connected to one of the N first selection lines (190), the gate region (116) being electrically connected to one of the M second selection lines (120).

16. An electric apparatus comprising a processor, a memory coupled to the processor, and a display coupled to an output terminal of the processor, wherein the memory comprises an electrical device as claimed in Claim 1.